FIRE APPARATUS/CAPITAL EQUIPMENT REPLACEMENT AND ALTERNATIVE METHODS OF FUNDING

FIRE SERVICE FINANCIAL MANAGEMENT

BY: Steve Pollock
Odessa Fire Department
Odessa, Texas

An applied research project submitted to the National Fire Academy as part of the Executive Fire Officer Program

July 8,1999

ABSTRACT

The problem that prompted this research was the inadequate equipment replacement fund of the Odessa Fire Department (OFD). The OFD did not have an adequately funded replacement plan for fire apparatus/equipment to meet the needs of the OFD.

The purpose of this research project was to develop a capital equipment replacement schedule that would meet the needs of the OFD, examine alternative funding options, and determine what equipment needed to be added to the apparatus/equipment replacement schedule. The evaluative research method was used. The following research questions were asked:

1. What are the current unfunded equipment liabilities in the OFD?
2. Why should fire apparatus, ambulances, ladders trucks, staff vehicles and rescues be replaced?
3. What is the recognized and/or average time for replacement for fire apparatus, ambulances, staff vehicles, and capital equipment (e.g. hydraulic tools, SCBA's, bunker gear, cardiac monitors)?
4. What are additional revenue generating sources that could be used to improve funding for capital equipment?

The literature review examined existing standards and recommendations pertaining to fire apparatus/equipment replacement. The second part of the literature review looked at alternative funding methods being used in the fire service. Some of the programs discussed included user fees for services, subscription fees, grant money, cost recovery programs, inspection and permit fees, and stand-by fees.

A survey was sent to 35 fire departments in Texas (17 were returned) to collect information concerning apparatus/equipment replacement. The results of the survey indicated that 100% of the departments had a replacement schedule and the average age for pumper replacement was 17.5-years. The literature review indicated the average age for pumper replacement at 10- to 15-years.

The first recommendation was a proposed apparatus/equipment replacement schedule, which, included replacing engines and ambulances on alternating years. The second recommendation was to implement an EMS subscription fee to provide the required additional funding for the new apparatus/equipment replacement schedule.

TABLE OF CONTENTS

PAGE

INTRODUCTION

The role of fire departments is changing dramatically on a daily basis. In the past the business of the fire department was fires, the reactive response to a fire for the purpose of protecting life and property. This is still the core mission of the modern fire department in addition to Emergency Medical Response, Hazardous Materials Response, High Angle Rescue, Fire Prevention, Public Education, Swift Water Rescue, and many other functions.

Across the nation there has been a widespread effort by the fire service to increase services delivered to the community. The change in the services that fire departments are delivering along with advances in technology has significantly changed the equipment we need, and use.

Capital equipment needs today include such items as cardiac monitors, hydraulic rescue tools, turnout gear, Self-Contained Breathing Apparatus (SCBA), computers, and apparatus. Apparatus includes Pumpers, Ladders, Quints, Rescues, Specialty Vehicles, and Ambulances; ranging in cost from $80,000 to $800,000.

The problem that prompted this research was the inadequate equipment replacement fund of the Odessa Fire Department (OFD). The OFD did not have a fully funded replacement plan for capital items which would meet current and future needs of the OFD. The city has an apparatus equipment replacement plan but it was under-funded, using inflated years of service to make the numbers look better, did not factor in inflation, and did not address other capital needs within the department.

The purpose of this research project was to develop a capital equipment replacement schedule that would meet the needs of the OFD, examine alternative funding

options, and determine what equipment needed to be added to the replacement schedule. This research employed evaluative research methodologies to answer the following questions:

1. What are the current unfunded equipment liabilities in the OFD?
2. Why should fire apparatus, ambulances, ladders trucks, staff vehicles and rescues be replaced?
3. What is the recognized and/or average time for replacement for fire apparatus, ambulances, staff vehicles, and capital equipment (e.g. hydraulic tools, SCBA's, bunker gear, cardiac monitors)?
4. What are additional revenue generating sources that could be used to improve funding for capital equipment?

BACKGROUND AND SIGNIFICANCE

The OFD was formed seventy-six years ago and protects an area of 36 square miles with approximately ninety-four thousand people. The department currently operates from eight fire stations and an administration building. The primary industry in the area is the oil and gas industries, including production, exploration, and technology development.

The city operated a fleet replacement fund that was responsible for replacing all the vehicles that the city operated. The replacement timetable was based solely on the age of the vehicle. Funding for replacement was based on present value and not future value, so the plan was under funded. In addition, when revenue was needed for emergencies or special projects the past practice has been to borrow from the equipment fund.

Reorganization of department (1998)

In an effort to operate more efficiently and purchase much needed capital equipment the OFD reorganized in 1997. The plan had five major components:

1. Eliminate truck companies and place one more quint in service for a total of two. By adopting the quint concept we could purchase one quint early and eliminate the expense of purchasing one engine and one ladder, which would have been replaced in two years. This started the updating of the fleet.
2. Eliminate one ambulance; operate four as oppose to five. This would generate additional savings that would allow for the early replacement of the remaining ambulances.
3. Improve all engine companies to Advanced Life Support (ALS) capabilities. This would improve the overall service being delivered and allow the department to operate with one less ambulance.
4. Improve rescue capabilities of all engine companies by adding additional equipment that would be normally carried by the truck companies. This included the addition of hydraulic rescue tools (Jaws of Life) to all engine companies.
5. Take personnel previously assigned to truck companies and the ambulance and reassign them to the engine companies, resulting in four person companies.

This plan was implemented in January 1998, and has worked very well for the department. Approximately 40% of the fleet (2-engines, 1-quint) have been replaced, but at the same time the OFD has other unfunded liabilities. The unfunded liabilities are:

1. Self Contained Breathing Apparatus (SCBA's)
2. Turnout Gear

3. Cardiac monitors for ambulances and engine companies
4. Hydraulic rescue tools

It was estimated that the department has a total of $1.8 million in unfunded liabilities over the next twenty years. Even with the streamlining of the fleet the replacement fund was insufficient to cover all the needs of the organization. Again, this was due to the fact that the fund had been borrowed from and had never had true replacement values paid into it.

Past Impact

The past impact on the department has been the operation of an aging fleet, using worn out or out dated equipment (e.g. SCBA's, rescue tools, cardiac monitors). This increased the liability to the members of the department and the citizens of the community. The failure of a Life Pak 10 that was 10 plus years old had already resulted in a lawsuit against the city.

Present Impact

With the reorganization in 1998 the OFD was able to update 40% of the fleet (two engines, one quint) and replace much of our equipment. Including:

- SCBA's
- Turnout gear
- 12 lead cardiac monitors
- Air Compressor
- Rescue Tools
- Helmets

Future Impact

Adequate funding is not being appropriated to replace this equipment in an acceptable time frame. Therefore, the OFD is working itself back into the same position as before the reorganization. In addition, we still have four front line engines that need replacement, but are not scheduled until the year 2003 and 2004. The reserve fleet consists of three engines, two, which are 20 plus years old and one 18-years old. The first part of the solution is to develop a replacement schedule, which meets the current and future needs of the OFD. The second step, based on how aggressive the replacement schedule is would be to identify funding for the plan.

This research was completed according to the applied research requirements of the National Fire Academy's Executive Fire Officer Program. The problem addressed by this research project is specifically related to Unit 4 and Unit 8 of the Fire Service Financial Management Course. In Unit 4 (Planning) A.K. Rosenhan states that "Without adequate funding, good financial planning and management for both immediate and future expenditures, other efforts will have little effect." Unit 8 (Alternative Funding) analyzes the process of developing superior revenue sources and provides managers with examples of innovative sources of revenue.

The results of this research will be very important to the future of the Odessa Fire Department and the City of Odessa. Revenue shortages, inflation and borrowing for infrastructure improvements have severely depleted the equipment replacement fund. Inflation, increased costs from new technology, and new standards from The National Fire Protection Agency (NFPA) continue to force the prices of new equipment up. All of these factors are making it harder each year to appropriate adequate funding to replace

equipment. This research will provide the Odessa Fire Department with information they need to develop a plan that can be presented to the City of Odessa for the systematic purchase of capital equipment.

LITERATURE REVIEW

A literature review was done for the purpose of reviewing research on capital item/apparatus replacement, and innovative and alternative methods of funding available to the fire service. The review included fire service journals, books on managing government, and Applied Research Projects from the National Fire Academy (NFA).

The first area of the literature review concerned the area of when and why to replace apparatus. The second area explores possible alternative methods of generating revenue to fund the needed capital equipment.

Apparatus Replacement

The purchase and replacement of fire apparatus should be a regular item of the fire department budget. Systematic apparatus replacement provides the fire department with reliable apparatus at all times. Improvements in fire apparatus design can be introduced, maintenance costs become more favorable, operating efficiency increases, and equipment remains reliable (Rosenhan, 1991).

Plan for a service life of fifteen years as first line apparatus, followed by five years of reserve status; resulting in replacement of engines or ladders after twenty years (Chatterton & Chatterton, 1994). The two largest purchases a department makes are stations and apparatus, not only in terms of their cost, but both will have to be maintained for a long time. The texts call for the replacement of first-line pumpers after fifteen years of service, and reserve apparatus after twenty-five years of age (Coleman and Granito,

1988). Generally, pumper apparatus can expect a 10-15 year span while aerial apparatus last 15-to 20-years if response criteria is less than the pumper (Cratty, 1997). In general, a 10-to 15-year life expectancy is considered normal for first-line pumping engines. "In some types of service, including areas of high fire frequency, a limit of only 10 years may be reasonable for first-line service" (Peterson, 1994). Graham Fire and Rescue promotes a sixteen-year replacement window for engines, eight years for medic units, four years for sedans, three years for command vehicles and seven years for maintenance trucks. They explain that road conditions, alarm activity and accidents may impact the life of a piece of equipment (Romines, 1997). Chatterton & Chatterton (1994) recommend replacing ambulances every seven years, cars, brush vehicles, and utility vehicles every ten years.

Anderson (1998) listed other factors that should be considered in addition to the age of the fire truck, in order to make the best decision as to whether the truck should be replaced. These factors include:

1. Personnel Safety – New standards deal with safety items such as fully enclosed cabs, higher visibility, cab noise abatement and various interlocks.
2. Obsolescence – Inadequate braking, slow pick-up and acceleration resulting in a tendency not to slow up at intersections, inadequate protection of driver and men, and structurally weakened chassis due to overloading.
3. Condition of Major Components – The condition of the drive train, transmission, engine, pump, chassis, and body.
4. Availability of Parts – Replacement parts may become harder to obtain, leading to longer periods of "down time".

5. Changes in National Standards or Federal Mandates – Determine how close in compliance your apparatus are with current National Fire Protection Standards (NFPA).
6. Maintenance Costs and Performance – All apparatus should be tested annually. These tests, together with your records of maintenance, should be used to determine the cost trend in maintaining the apparatus.
7. Mission – Is the present unit adequate to complete the mission now as well as five to ten years from now?

Apparatus replacement is not dependent solely on age. A unit's routine workload, it's physical condition, and the amount of preventive maintenance it has received during its lifetime tend to be better indicators of whether the apparatus is still reliable for first-line duty (Peters, 1995). Apparatus life expectancy varies greatly from one location to another. A 10- to 15-year life expectancy is considered normal for first-line pumpers that are used daily in moderate-to-heavy-response areas (Peters, 1995).

What justifies and magnifies the need for apparatus replacement is escalating maintenance costs, increased downtime, and noncompliance with new standards. The need to address these concerns, and the desire to increase efficiency are good reasons to replace outdated equipment (Peters, 1995). Changing national standards are perhaps the most important consideration for determining whether to replace an apparatus (Anderson, 1998).

The normal life expectancy for first-line apparatus will vary from city to city, depending upon the amount of use the equipment receives and the adequacy of the maintenance program. In general, a 10-to 15-year life expectancy is considered normal

for first-line pumping engines. First-line ladder trucks should have a normal life expectancy of at least 15 years. The older apparatus may be retained as part of the reserve fleet, as long as it is in good condition, but in almost no case should the fire department rely on any apparatus more than 25 years old (Craven, 1997).

Delaying the replacement of fire apparatus may cause agencies to replace a lot of equipment at one time. There may be cost savings per unit for quantity purchases, but the entire fleet will age at the same rate (Peterson, 1994). Systematic apparatus replacement provides the fire department with reliable apparatus at all times. Improvements in fire apparatus design can be introduced, maintenance costs become more favorable, operating efficiency increases, and equipment remains reliable (Rosenhan, 1991). In purchasing fire apparatus a logical plan of gradual replacement should be followed rather than waiting until several pieces of equipment must be replaced by bond issue. A gradual replacement program will keep the department well equipped and up to date at all times instead of jumping from very poor to very good all at once (Matthew, 1997). A definitive equipment replacement program should be planned five to ten years in advance and updated annually. Having a more scheduled approach to replacement would allow design changes to be implemented and evaluated before a mistake is adopted on a large scale (Matthew, 1997).

This portion of the literature review indicated that apparatus should be replaced on a regularly scheduled basis. Fire apparatus should also be a regular budget item for the fire department. A systematic approach to replacing the fleet is recommended. This will allow for reliable apparatus in the fleet at all time. There were several factors to consider when apparatus replacement is being looked at. The age, physical condition, maintenance

program, amount of downtime, and non-compliance with new standards should all be considered. In general, all the authors agreed that 10- to 15-years was an acceptable life expectancy for first-line pumpers, while ladders were 15- to 20-years.

Alternative Funding Methods

In the state of Washington a benefit charge was created by the state legislature to provide an alternative to property taxes for financing fire protection districts in the state. The new law requires that a benefit charge shall be reasonable proportioned to the measurable benefits to property resulting from the services afforded by the district. The benefit charge is based on the amount of fire flow required for the structure, the distance of the structure from fire protection, and the special service benefit, which provides funding for emerging costs. Fred Baker of King County District 16 commented, "we can no longer simply base the cost of fire protection on assessed value of property. We have to take into account the measurable benefits we provide to property owners. The benefit charge is a way to apportion the costs more fairly" (Peters, 1991).

Davis (1993) noted that innovative revenue sources must be a priority for departments as we move towards the 21st century. The days of old, when we had a spending plan and gave no thought to revenue, are over. Some possible revenue sources are:

- Fire/EMS subscriptions – a voluntary fire department subscription program would allow citizens to pay an annual fee-guaranteeing members of that household-unlimited fire department assistance at no further charge.
- Business license fee – During routine fire inspections, your firefighters can ascertain if the business possesses a current license. For those businesses found to be

operating without a valid license, a citation is given, and the fire department and finance department split the penalty fee.

- Admissions tax – These taxes are collected by operators on behalf of the jurisdiction for attendance at events and venues, including horse racing, sports events, concerts, circuses, movies, museums, skating rinks and other exhibitions and performances.

Most fire departments are funded by revenues generated through property tax levied against property owners and corporations. However a variety of state and local laws have been enacted that limit the ability of communities to raise taxes. Although the impact of these restrictions were minimal at first, the drive to constrain government spending continues to create hardship for fire and emergency service agencies (DiPoli, 1997).

DiPoli (1997) identified the following list of 10 methods for raising capital funds.

1. Grant Money – Most grant monies come from one of three sources, foundations, corporations, or government.
2. Cost Recovery – A cost recovery program can be instituted for additional services and to handle increased demands for funds by billing for services rendered. There are several services for which a cost recovery program can be beneficial including false alarms, ambulance transports, vehicle maintenance, and equipment replacement.
3. User Fee – A user fee is a good source of revenue for service that benefits individuals. User fee services include ambulance transports, fire personnel for private use (e.g. such as fire watches), false alarm responses.
4. Fire Inspection and Permit Fees – These include fees for smoke detection inspection, removal of underground tanks, blasting permits, and storage of

flammable fluids. Some of these fees are set by state statute while the fire chief or agency manager can recommend others.

5. Stand-By Fees – This is a fee charged for fire department personnel and equipment needed to stand-by at non-emergency, or post-emergency, situations.
6. Unnecessary Fire Alarm Fee – This fee is based on the premise that unnecessary alarms or false alarms should be passed on to the property owner. Generally a minimum number of alarms must be exceeded before the fee is imposed.
7. Non-Criminal Disposition or Fine – These fines are levied as a result of a violation of a fire related standard or code.
8. Public Service Call Fee – This is a controversial fee that is difficult for many fire service personnel to consider charging. Public service calls such as lockouts, pumping out cellars, animal rescue, and aerial ladder service calls are often seen as part of the public service being provided by the department.
9. General Override, Debt Exclusions, and Capital Outlay Exclusion – The following are what might be called "Quick Fix" solutions to capital expenditure items. In a General Override, a community can increase its levy over the automatic 2.5 increase by approving an override. The override can be for any amount as long as it does not increase the tax rate to more than $25 per $1000 or assessed valuation. This example can vary from state to state. A community can increase the levy limit for the payment of a specified debt service cost. The additional amount for the payment of the debt service is added to the levy limit for the life of the debt. Capital outlay exclusion is similar to debt exclusion, however it does not utilize long-term bonding. Instead, the additional amount of

the cost is added to the levy limit for only the year in which the project is being undertaken.

10. Municipal Home Owners Insurance – Profits from the homeowners insurance policies help pay for fire protection through Municipal Homeowners Insurance Program. It works in the following manner. An on-duty firefighter/inspector is sent to the home to check for overall security and potential hazards, filling out a checklist. Homeowners who pass the inspection are offered a policy, which is sponsored by the city/community. In return for its' sponsorship, the city/community keeps the underwriting profits produced by the program. These profits help to fund capital expenditure items, thus benefiting the department as well as the taxpayers.

Among the most frustrating problems for fire inspection personnel are re-inspections, re-testing, and rescheduling of appointments for fire protection system tests. Staffing cutbacks and increasing workloads have led many fire departments to institute fees (or raise fees) for re-inspections, both to discourage contractors and businesses from taking fire inspectors' time for granted, and to encourage speedy compliance. Missed inspections, failed tests, and continuing violations often result in fees to compensate for the inspector's lost time, as well as to deter violations (FEMA/USFA publication, 1993).

The Benica, California Fire Department also uses inspection fees, but with a positive reinforcement twist – an interesting innovation. Benica charges $35 per company inspection. However, if the inspected property is found to be in compliance, or complies with fire department instructions before a follow-up visit, the fee is waived. If the

occupancy fails to comply, the fee is applied for each fire department visit (usually $105 for three inspections) (FEMA/USFA publication, 1993).

The Ventura City Fire Department (California) has established guidelines for recovering costs for certain fire-related incidents, including unlawful discharge of fireworks resulting in a fire; intentionally set fires, including juveniles playing with fires; malicious false alarms; inadequate control of open burning; and misuse of ignition sources (FEMA/USFA publication, 1993).

Many departments now charge for hazardous materials responses, both to offset costs and as an incentive for properly managing hazardous materials. The fee also helps replenish materials and equipment used to mitigate a spill or release. Federal law now requires the owner or transporter of spilled hazardous materials to pay cleanup costs, including fire department and EMS costs, which helps justify these fees to the public, and make it easy to start charging. (FEMA/USFA publication, 1993).

Some departments recover part of the costs of training facilities and training staff by charging fees for any training provided to other local governments, or the private sector. The charges may just offset costs, or they may be set to create a net income. Sometimes the training is done for a fee per student and sometimes it is provided under a contract. In addition to fees for training others in fire protection or EMS, many departments' train private citizens and businesses. Training such as CPR courses, public safety seminars, and fire extinguisher classes require relatively few training resources and fit well with the mission of fire departments, rescue squads, and emergency medical organizations (FEMA/USFA publication 1993).

In a growing number of jurisdictions, EMS subscription fees are being used as an alternative to directly charging users of emergency medical transport services. There are two basic types of subscriptions. The first is a flat yearly fee per household, which covers all charges for any EMS service provided. In the second variation, a small annual fee covers all expenses not paid by medical insurance. The user signs up for the program and authorizes the city to file reimbursement claims directly with the user's health insurer when transport services are provided. Most insurance plans do not cover the full cost of transport, but the jurisdiction writes off the uncovered portion of the fee; the jurisdiction does not try to collect the remaining balance from the user. If not a subscriber, the user is charged the full transport fee and is directly responsible for paying it (FEMA/USFA publication, 1993).

The City of Boston Fire Department was faced with false alarms that placed a burden upon their operations. A city ordinance was enacted in 1988 enabling the fire department to charge fees for false alarms on a sliding scale. In just three years, the number of false alarms dropped from over 9000 per year to 5000 per year, a decrease of 44 percent. While intended to reduce alarms, not create a new revenue source, the city nevertheless brought in over $280,000 out of $400,000 in fines billed under this program (FEMA/USFA publication, 1993).

This portion of the literature review indicates that there are several alternative funding programs in use throughout the fire service. Many of these can be implemented with resources, which already exist within your fire department. For example, if your department is already providing EMS transport services, an EMS subscription fee may be an excellent opportunity for your organization to generate additional revenue.

Departments that have personnel trained in inspection services can consider the option of adopting user fees for required inspections. Alternative funding is a good way of supplementing you budget, it is not intended to replace revenue budgeted from the general fund. Alternative funding can help reduce the pressure on the taxpayer and provide a mechanism to expand services. Most of the literature reviewed stressed that any alternative-funding program your department adopts should be setup so the fire department, and not the general fund, receives the money.

PROCEDURES

The problem was the OFD did not have an adequately funded capital equipment replacement fund, which would meet the needs of the OFD. The purpose of this research was to develop a capital equipment replacement schedule that would meet the needs of the OFD, examine alternative funding options, and determine what equipment needed to be added to the replacement schedule. The following questions were formulated to provide the needed information so as to determine what changes should be recommended to the organization.

1. What are the current unfunded capital liabilities in the OFD?
2. Why should fire apparatus, ambulances, ladders trucks, staff vehicles and rescues be replaced?
3. What is the recognized and/or average time for replacement for fire apparatus, ambulances, staff vehicles, and capital equipment (e.g. hydraulic tools, SCBA's, bunker gear, cardiac monitors)?
4. What are additional revenue generating sources that could be used to improve funding for capital equipment?

The sources of information used to answer these questions included The Learning Resource Center (LRC) at the National Fire Academy (NFA), The Fire Chief's Handbook (fifth edition), The Fire Protection Handbook (17th edition), an interview with the Finance Director, and a mailed survey consisting of four questions.

The L.RC. provided this author with several articles and research papers concerning the issues of equipment replacement and alternative funding. The articles and research on equipment replacement revealed important information about when and why to replace apparatus. It also discussed the pros and cons of systematically replacing your fleet versus total fleet replacement at one time. The information gained from this research enabled the OFD to develop a proposed schedule of replacement for capital items.

The articles and research reviewed on alternative funding, in particular the FEMA publication, "A Guide to Alternatives for Fire and Emergency Medical Services Departments" were very useful. The ideas identified in this portion of the research helped the OFD develop a proposal for alternative funding, which would be presented, to the city council.

The interview with the Finance Director (James Zentner) revealed the current process which was being used to replace equipment. Mr. Zentner identified the portion of the current fire department budget that was going towards equipment replacement. An explanation of why the city was funding the amount it was for each piece of equipment, what the replacement timeframe was, and which equipment was included in the schedule.

After reviewing the literature, and completing the interview with the Finance Director a mailed survey consisting of four questions was sent out. The survey was sent to thirty-five fire departments located in Texas since they would be more likely to operate under

the same funding, and purchasing laws as the OFD. The survey produced fifteen usable responses, which correlates into a participation rate of 42%.

Limitations

Participation in this survey represents a small percentage of the departments in the State of Texas, and an even smaller percentage of all the fire agencies in the United States.

The literature review revealed that life expectancy for first-line apparatus varied greatly from one location to another. No specific age could be identified for first-line apparatus replacement. What was identified was an average life of 10-to 15-years for first line pumpers and 15- to 20-years for ladders.

The data for replacement of equipment like hydraulic tools, cardiac monitors, SCBA's and bunker gear was determined by past use within the OFD and information provided by the survey. The research failed to determine the life of such equipment.

Definitions

1. **Capital equipment replacement schedule -** refers to a schedule, which identifies any capital equipment, which should be replaced during the current fiscal year. Normally this equipment has a purchase value greater than $1000 and a defined life span.
2. **Alternative funding sources** - are non-traditional methods of raising revenue for local government. These are funds, which are not appropriated each year from the general fund.
3. **Apparatus -** refers to pumpers, ladder, quints, ambulances, rescue vehicles, and staff cars.

4. **Unfunded Liabilities –** refers to equipment in use which is not budgeted for replacement.

RESULTS

Research Question # 1

What are the current unfunded equipment liabilities in the OFD?

The OFD funds approximately $204,000 per fiscal year into an equipment replacement fund. This amount is intended for the replacement of 6-Engines, 2-Quints, 1-ladder, 6-Ambulances, 2-Tankers, 2-speciality vehicles, and 10-staff vehicles. An interview with the Director of Finance (James Zentner) was conducted to determine what was actually being scheduled for replacement through the equipment replacement fund. Also, the author needed to determine the amount the OFD was paying into the fund on a yearly basis, and the projected timeframe for the equipment that was to be replaced. In March (1999) during this interview, Director of Finance, James Zentner stated the following:

> The equipment the fire department is paying replacement costs on include fire apparatus, ambulances, staff vehicles, and specialty vehicles. The fire department is funding approximately $204,000 per year into the fund. The current replacement schedule calls for replacing engines at 20-years, ambulances at 10-years, staff vehicles at 10-years, and specialty vehicles at 15-years. The other equipment needs, including hydraulic rescue tools, cardiac monitors, bunker gear, and SCBA's, should be considered unfunded liabilities because there are no funds being budgeted on a yearly basis for replacement of these items.

Zentner also stated that the OFD could set up a replacement schedule for all equipment on any time frame that would meet the needs of the department, as long as we could fund it with no increase to the budget through general fund appropriations. After the interview with the finance director it was determined that the following equipment should be included in the apparatus/equipment replacement schedule:

- Turnout gear
- Self Contained Breathing Apparatus
- Cardiac Monitors
- Hydraulic Rescue Tools

Research Question # 2

Why should fire apparatus, ambulances, ladders trucks, staff vehicles and rescues be replaced?

There were several reasons listed as to why fire apparatus should be replaced. Anderson (1998) listed the following:

1. Personnel Safety
2. Obsolescence
3. Condition of Major Components
4. Availability of Parts
5. Changes in National Standards or Federal Mandates
6. Maintenance Costs and Performance
7. Mission

Peters (1995) stated that maintenance costs, increased downtime, and noncompliance with new standards are all valid reasons for replacing apparatus. Anderson (1998) felt

changing national standards were perhaps the most important consideration when replacing apparatus. Planning for the replacement of fire apparatus and other capital items is necessary in order to ensure that funding is available. Rosenhan (1991) stated that a systematic replacement plan would provide the fire department with reliable apparatus at all times. The benefits of improved apparatus design, lowered maintenance costs and increased efficiency were products of an apparatus replacement plan. Systematic apparatus replacement provides the fire department with reliable apparatus at all times. Improvements in fire apparatus design can be introduced, maintenance costs become more favorable, operating efficiency increases, and equipment remains reliable (Rosenhan, 1991). Having a more scheduled approach to replacement will allow design changes to be implemented and evaluated before a mistake is adopted on a large scale (Matthew, 1997).

Research Question # 3

What is the recognized and/or average time for replacement of fire apparatus, ambulances, staff vehicles, and capital equipment (e.g. hydraulic tools, SCBA's, bunker gear, cardiac monitors)?

The fire service should plan for a service life of 10- to 15-years for first-line apparatus, followed by 5-years of reserve status. This means that engines or ladders should be replaced after 20-years. A 10-to15-year life expectancy is normal for first-line pumping engines. In some types of service, including areas of high fire frequency, a limit of only 10-years may be reasonable for first-line service (Peterson, 1994).

The Graham Fire and Rescue developed a sixteen-year replacement window for engines, eight-years for ambulances, four-years for staff vehicles, and three-years for

command vehicles. When replacing equipment Graham Fire and Rescue factors in road conditions, alarm activity and accidents, which may impact the life of a piece of equipment.

In general, a 10- to 15-year life expectancy is considered normal for first-line pumping engines. First-line ladder trucks should have a normal life expectancy of at least 15 years. In almost no case should a fire department rely on any apparatus more than 25 years old (Rosenhan, 1991).

All of the research in this area indicated clearly that the life of first-line apparatus should be 10- to 15- years, with a 15-year minimum life expectancy for ladder trucks. The research indicates that the normal life expectancy for first-line apparatus will vary from city to city, depending upon the amount of use the equipment receives and the adequacy of the maintenance program.

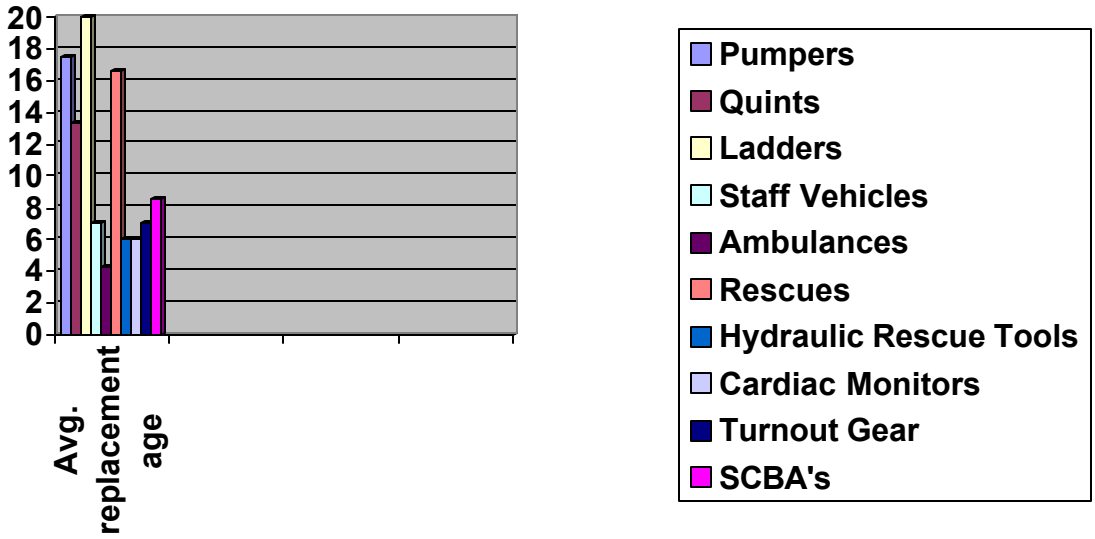
A survey (Appendix A) was sent to thirty-five fire departments in the State of Texas. The purpose of the survey was to see if these departments mirrored the results of the literature review and determine the life expectancy of other equipment including hydraulic rescue tools, SCBA's, cardiac monitors, and turnout gear.

Out of the thirty-five surveys sent out, fifteen were returned for a participation rate of forty-two percent. The departments that participated in the survey indicated the following:

- 100% had some type of systematic replacement schedule in place for fire apparatus, ambulances, staff vehicles, ladders, and rescues.
- 16% used age as the criteria for replacing equipment.
- 34% replaced equipment based on condition.

- 50% considered both the age and condition when replacing equipment.
- The average age for replacing apparatus and vehicles is as follows:
    1. Pumpers – 17.5-years
    2. Quints – 13.3-years
    3. Ladders – 20-years
    4. Ambulances – 4.3-years
    5. Staff Vehicles – 7-years
    6. Rescues – 16.6-years.
- When asked about the replacement of other equipment the results were as follows:
    1. Hydraulic Rescue Tools – 17% budgeted for replacement, 83% did not. Average age for replacement was six years.
    2. Cardiac Monitors – 17% budgeted for replacement, 83% did not. Average age for replacement was six years.
    3. Turnout Gear – 50% budgeted for replacement, 50% did not. Average age for replacement was seven years.
    4. SCBA – 33% budgeted for replacement, 67% did not. Average age for replacement was 8.5 years.

Average replacement age of equipment as determined by survey



Research Question # 4

What alternative revenue generating programs are currently being used by the fire service?

The State of Washington created a benefit charge for financing Fire Protection Districts. The charge was based on the amount of fire flow required for the structure, the distance of the structure from fire protection, and the special service benefit. Peters, (1991) stated the benefit charge is a way to apportion the costs more fairly. This charge was an alternative to using property taxes to finance fire protection. Action by the state legislature was required to get this charge implemented.

EMS subscription fees are another source of generating revenue. When a department has EMS transport capabilities the subscription fee can be used as an alternative to directly charging users of the emergency medical transport service. Under

the subscription service an annual fee per household covers all expenses not paid by medical insurance. If the user has no insurance the fee still covers all the charges for the service. During this research the author contacted the Shreveport Fire Department about their EMS subscription service. EMS Chief Lazarus stated that "it was very important to promote your program throughout the community and to set it up so that the funds generated returned to the fire department, and not the city general fund" (telephone conversation with EMS Chief Lazarus, May 1999).

The inspection division has numerous services they already are doing that can be charged for. These include checks for smoke detectors; inspection when removing underground tanks, blasting permits, and permits for the storage of flammable liquids.

The Benica Fire Department charges $35 per company inspection. However, if the inspected property is found to be in compliance, or complies with the fire department instructions before a follow-up visit, the fee is waived (FEMA/USFA publication, 1993).

Recovering costs for certain fire-related incidents is becoming more common in the fire service. Ventura, California has established guidelines for recovering costs for the unlawful discharge of fireworks, juveniles playing with fires, malicious false alarms, inadequate control of open burning, and misuse of ignition sources.

One of the more costly operations for the fire service is a hazardous materials incident. Federal law that requires the owner or transporter of spilled materials to pay clean-up costs, including fire and EMS cost incurred. It is up to the department to bill the responsible party.

Revenue can be generated by charging for the use of your training facilities or by providing training to other local governments, or the private sector. This would include classes on CPR, public safety, injury prevention, and fire extinguishers.

The Boston Fire Department enacted an ordinance, which enabled the fire department to charge for false alarms. In three years the number of false alarms decreased by 44% and the city generated over $280,000 in revenue.

There were many alternative funding programs identified in the literature review that are being used throughout the fire service. Whether these programs will work in your department will depend on your available resources, the political climate, and the laws, policies and procedures of your local jurisdiction. Alternative funding is an excellent method of supplementing your budget, but it is not intended to replace revenue budgeted from the general fund.

DISCUSSION

The decision to purchase capital equipment (fire apparatus, ambulances, tools, etc.) should be a planned item within the fire department budget each year. To be sure the department is purchasing the right equipment you must continually examine what your mission is, the service you want to deliver, and the needs of the community. After the department determines what their equipment needs are they can develop a systematic apparatus/equipment replacement schedule.

The systematic replacement of apparatus provides the fire department with reliable apparatus at all times. Improvements in fire apparatus design can be introduced, maintenance costs become more favorable, operating efficiency increases, and equipment remains reliable (Rosenhan, 1991). In purchasing fire apparatus a gradual replacement

program will keep the department well equipped and up to date at all times instead of jumping from very poor to very good all at once (Matthew, 1997).

In a survey conducted by this author, 100% of the fire departments, which responded, had an apparatus replacement plan of some type in place. It is not known if these plans were meeting all the needs of each department. In the case of the Odessa Fire Department, the replacement plan in place does not meet all of the department needs.

Knowing when to replace fire apparatus is extremely difficult. Information to tell the fire service exactly when to replace apparatus and equipment is not available. There have been several articles and studies written which make recommendations for replacing apparatus and vehicles. This author was unable to find any information for the replacement of equipment like cardiac monitors, SCBA's, hydraulic rescue tools and turnout gear. In general, the information available recommends replacing first-line-pumping apparatus every 10- to 15-years. Ladder trucks should operate a minimum of 15- to 20-years.

Generally, pumper apparatus can expect a 10-15 year span while aerial apparatus last 15-20 years if response criteria is less than the pumper (Cratty, 1997). The texts call for the replacement of first-line pumpers after fifteen years of service, and reserve apparatus after twenty-five years of age (Coleman and Granito, 1988). Chatterton & Chatterton (1994) recommend replacing ambulances every seven years, cars, brush vehicle, and utility vehicles every ten years.

The results of the survey of fire departments within The State of Texas indicated that one was replacing at 10-years of service, one at 20-years service and the others at 15-years service. The combined average of these departments for replacing pumping

apparatus was 17.5 years. The average replacement age for ladder trucks was 20-years, ambulances 4.3-years, and staff vehicles 7-years.

Whether your department decides to replace apparatus at 10-years or 20-years is up to each individual department. There are many other reasons for replacing apparatus and equipment other than age. When making a decision as when to replace equipment each department should consider changing national standards, maintenance costs, apparatus condition, obsolescence, availability of parts, and is your current equipment adequate to meet your mission.

Apparatus replacement is not dependent solely on age. A unit's routine workload, it's physical condition, and the amount of preventive maintenance it has received during its lifetime tend to be better indicators of whether the apparatus is still reliable for first-line duty (Peters, 1995). What justifies and magnifies the need for apparatus replacement is escalating maintenance costs, increased downtime, and noncompliance with new standards. The need to address these concerns, and the desire to increase efficiency are good reasons to replace outdated equipment (Peters, 1995). Changing national standards are perhaps the most important consideration for determining whether to replace an apparatus (Anderson, 1998).

The results of the survey sent to thirty-five departments within Texas show that approximately 83% of these departments are looking at other criteria than just the age of the apparatus. 50% of the departments surveyed use age as one of the factors considered, and 33% don't consider age at all.

This research revealed significant data on the replacement of fire apparatus and vehicles. This author was unable to find any research or information on replacement

recommendations for other equipment such as hydraulic rescue tools, cardiac monitors, SCBA's and turnout gear. This equipment like fire apparatus does not have an indefinite life and replacement needs to be planned for. The survey indicated that most departments, including the Odessa Fire Department, do not have these items included in a systematic replacement schedule. This equipment needs to be replaced for many of the same reasons, which a fire department would replace, fire apparatus. Personnel safety, age, maintenance costs, obsolescence, and changes in nationals standards. Of the departments surveyed, some indicated an average age at which they attempted to replace this equipment. These results are in the result section.

It is this authors belief that both fire apparatus and other ancillary equipment need to be replaced on a systematic schedule. This will ensure a continuous updating of the fleet, and equipment, and ensure that the department does not have to approach the city with the major cost of updating the entire fleet at once. The schedule should be reviewed on a yearly basis to ensure adequate funding and that the equipment being purchased is needed, and will help the fire department accomplish its mission.

The Odessa Fire Department has an equipment replacement schedule in place. This research was initiated because it was felt this schedule did not meet the needs of the department, and did not include replacing equipment vital to the operation of the Odessa Fire Department. It was believed that this research would show the need for improving the current replacement schedule. The author realized this would mean an increase in the amount of funding the fire department contributed to the replacement fund. Included in this research was an examination of alternative funding methods currently being used in the fire service?

Dipoli (1997) identified the following methods for raising capital funds:

1. Grant Money
2. Cost Recovery
3. User Fees
4. Fire Inspection and Permit Fees
5. Stand-By Fees
6. Unnecessary Alarm Fee
7. Non-Criminal Disposition or Fine
8. Public Service or Call Fee
9. General Override, Debt Exclusion, and Capital Outlay Exclusion
10. Municipal Homeowners Insurance

An excellent source of alternative funding methods is the Federal Emergency Management Agency (FEMA) publication on "A Guide to Funding Alternatives for Fire and Emergency Medical Departments (1993)." This publication outlined several different programs for generating revenue including the use of re-inspection fees, charging for hazardous materials responses, EMS subscription fees, and providing training to other organizations.

One thing consistently stressed throughout the research was that alternative funding was not intended to replace revenue budgeted from the general fund. Alternative funding is a good way to supplement your budget, help take pressure off the taxpayer, and provide a mechanism to expand services. Also, anytime an alternative funding program is adopted it should be set-up so that the fire department receives the revenue and not the general fund.

The results of this research clearly show that the Odessa Fire Department needs to develop a new replacement schedule for fire apparatus and capital equipment. The current schedule is not meeting the needs of the Odessa Fire Department. Before any enhancements can be made or an improved schedule proposed to the city, the fire department must identify some alternative methods to fund the needed improvements to the fire apparatus/equipment replacement program.

RECOMMENDATIONS

The Odessa Fire Department is responsible for many aspects of public safety within our community. Fire apparatus and the equipment carried on this apparatus are critical to our ability to carry out our mission. When this equipment is worn out, out-dated, or unsafe it makes it that much harder to accomplish our mission. Therefore, it is our duty as leaders in the fire service to develop plans to replace equipment on a regular systematic basis to ensure that the department is provided with reliable apparatus and equipment at all times. For the Odessa Fire Department this means developing an apparatus/equipment replacement schedule that meets our needs and gives the department the ability to consistently deliver the high level of service that is expected. Because unlimited tax dollars are not available to the fire service it has become the responsibility of the leaders of the fire service to identify the means to fund the needed improvements.

The following recommendations are being made to the Odessa Fire Department:

1. Adopt the proposed replacement schedule (Appendix B). This schedule calls for the systematic replacement of fire apparatus, ambulances, specialty vehicles, staff cars, and capital equipment. The length of service on all this equipment is based on the

research, results of the survey, and past maintenance history of equipment within the Odessa Fire Department.

2. Propose an alternative funding plan for an EMS subscription fee (Appendix C). This funding source was chosen because the Odessa Fire Department is already providing emergency medical transport services. It will not require any additional equipment or personnel to implement.

REFERENCES

Anderson, J. (1998). Justifying the Purchase of New Fire Apparatus. *National Fire Academy, Applied Research Project.*

Cratty J. (1997). A Process to Determine Aerial Apparatus Needs. *National Fire Academy, Applied Research Project.*

Chatterton H. and Chatterton M. (1994). Making and Managing Money. *Fire Engineering Books and Videos.*

Davis, P. (1993, Jan.). What you and your dentist have in common. *Fire Chief.*

DiPoli, R. (1997, Nov.). 10 Capital Funding Sources that still make sense. *Responder*

FEMA/USFA (1993). A Guide to Funding Alternatives for Fire and Emergency Medical Service Departments. *FEMA/USFA publication.*

Matthew, C. (1997). Scheduling Apparatus Replacement. *National Fire Academy, Applied Research Project.*

Peters, M. (1991, Jan.). Legislation Increase Fire Department Funding. *Fire Chief.*

Peters, W. (1992, Oct.). Is Refurbishment Right for You? *Fire Engineering.*

Peters, W. (1994). Fire Apparatus Purchasing Handbook. *Fire Engineering Books and Videos.*

Peters, W. (1995). Fire Department Apparatus. *Fire Chiefs Handbook 5th ed., Fire Engineering Books and Videos.*

Peterson, C. (1994, May/June). When Should Apparatus be Replaced? *Minnesota Fire Chief.*

Romines, R. (1997). Development of Apparatus Replacement and Funding for Graham Fire and Rescue. *Applied Research Project, National Fire Academy.*

Rosenhan, A. (1991). Fire Department Apparatus, Equipment, and Protective Clothing. *Fire Protection Handbook (17th ed.).*

APPENDIX A

Capital Equipment/Alternative Funding Survey

Question 1

Does your department have a scheduled systematic replacement plan for fire apparatus, ambulances, and staff vehicles?

YES _____
NO _____

Question 2

What criteria does your department use for replacing apparatus?
Age _____
Condition of Apparatus _____
Other _____
_____

Question # 3
If your department uses age (in years) to replace fire apparatus and equipment, what are those figures?

Engine Companies _____
Quint apparatus _____
Ladder Companies _____
Ambulances _____
Staff vehicles _____
Rescues _____

Question # 4

Does your department have a replacement schedule for the following equipment? Circle yes or no

Hydraulic Rescue Tools	yes	no	Life span in years	_____
Cardiac Monitors	yes	no	Life span in years	_____
Turnout Gear	yes	no	Life span in years	_____
SCBA's	yes	no	Life span in years	_____

APPENDIX B

EQUIPMENT REPLACEMENT SCHEDULE

Fiscal year	Life of equipment	Equipment being replaced	Approximate cost	Estimated income	Notes
99/2000				$ 140,000.00	EMS revenue
				$ 205,613.00	Replacement fund
				$363,296.66	Total with interest
	16	Engine 5 (Quint)	$ 405,000.00		
	16	Medium duty rescue unit	$ 150,000.00		
			$ 555,000.00		
		Less trade-in ($280,000)	$ 275,000.00	$88,296.66	Fund balance
	8	Combo rescue tools	$ 15,000.00	$73,296.66	
		unit 1805	$ 19,000.00	$54,296.66	
2000/01				$54,296.66	Fund balance
				$ 140,000.00	EMS revenue
				$ 205,613.00	Replacement fund
				$420,371.48	Total with interest
	8	Life Pack 10	$ 96,000.00	$324,371.48	
2001/02				$324,371.48	Fund balance
				$ 140,000.00	EMS revenue
				$ 205,613.00	Replacement fund
				$704,264.96	Total with interest
	8	unit 1967/1968	$ 39,000.00	$665,264.96	
	16	Engine 7	$249,311.50	$415,953.46	Fund balance
2002/03				$415,953.46	Fund balance
				$ 140,000.00	EMS revenue
				$ 205,613.00	Replacement fund
				$800,532.83	Total with interest
	8	unit 1986	$20,157.10	$780,375.73	
	6	Medic 1, 2	$169,744.00	$610,631.73	
2003/04				$610,631.73	
				$ 140,000.00	EMS revenue
				$ 205,613.00	Replacement fund
				$1,005,172.03	Total with interest
	15	SCBA cylinders	$ 30,000.00	$975,172.03	
	16	Engine 2	$264,494.57	$710,677.46	
2004/05				$710,677.46	
				$ 140,000.00	EMS revenue
				$ 205,613.00	Replacement fund
				$1,110,336.71	Total with interest
	8	Hydraulic rescue tools	$ 120,000.00	$990,336.71	
	6	Battalion One	$36,733.82	$953,602.88	
	6	Medic 5, 8	$180,081.41	$773,521.48	

Fiscal year	Life of equipment	Equipment being replaced	Approximate cost	Estimated income	Notes
2005/06				$773,521.48	
				$ 140,000.00	EMS revenue
				$ 205,613.00	replacement fund
				$1,176,396.21	total with interest
	7	Bunker gear	$ 112,000.00	$1,064,396.21	
	8	Life Pack 12	$ 121,952.00	$942,444.21	
	10	FMO vehicles	$ 112,000.00	$830,444.21	
	16	Engine 8	$280,602.29	$549,841.92	
2006/07				$549,841.92	
				$ 140,000.00	EMS revenue
				$ 205,613.00	replacement fund
				$941,271.84	total with interest
	6	Medic 3, 7	$191,048.37	$750,223.47	
2007-08				$750,223.47	
				$ 140,000.00	EMS revenue
				$ 205,613.00	replacement fund
				$1,151,906.13	total with interest
	10	SCBA units	$ 175,000.00	$976,906.13	
	10	utility 6	$42,736.54	$934,169.59	
	16	Engine 6 (Quint)	$506,708.03	$427,461.56	
2008/09				$427,461.56	
				$ 140,000.00	EMS revenue
				$ 205,613.00	replacement fund
				$812,629.76	total with interest
	8	Life Pack 10	$121,609.93	$691,019.83	
	8	unit 1805/1806	$48,137.26	$642,882.57	
	6	Medic 1, 2	$202,683.21	$440,199.35	
2009/10				$440,199.35	
				$ 140,000.00	EMS revenue
				$ 205,613.00	replacement fund
				$826,019.30	total with interest
	8	unit 1967/1968	$49,404.03	$776,615.26	
	10	Tankers (2)	$215,026.62	$561,588.64	
2010/11				$561,588.64	
				$ 140,000.00	EMS revenue
				$ 205,613.00	replacement fund
				$953,619.60	total with interest
	15	Haz Mat 1	$ 150,000.00	$803,619.60	
	8	unit 1986	$25,534.41	$778,085.19	
	6	Battalion One	$43,862.11	$734,223.08	
	6	Medic 5, 8	$215,026.62	$519,196.46	
2011/12				$519,196.46	
				$ 140,000.00	EMS revenue
				$ 205,613.00	replacement fund
				$909,058.37	total with interest
	16	Engine 4	$335,053.81	$574,004.56	

Fiscal year	Life of equipment	Equipment being replaced	Approximate cost	Estimated income	Notes
2012/13				$574,004.56	
				$ 140,000.00	EMS revenue
				$ 205,613.00	replacement fund
				$966,670.79	total with interest
	7	Bunker gear	$148,814.74	$817,856.06	
	8	Hydraulic rescue tools	$152,012.41	$665,843.65	
	6	Medic 3, 7	$228,121.74	$437,721.91	
2013/14				$437,721.91	
				$ 140,000.00	EMS revenue
				$ 205,613.00	replacement fund
				$823,415.09	total with interest
	8	Life Pack 12	$154,485.14	$668,929.94	
	16	Engine 3	$355,458.59	$313,471.36	
2014-15				$313,471.36	
				$ 140,000.00	EMS revenue
				$ 205,613.00	replacement fund
				$692,807.12	total with interest
	6	Medic 1, 2	$242,014.36	$450,792.77	
2015/16				$450,792.77	
				$ 140,000.00	EMS revenue
				$ 205,613.00	replacement fund
				$837,154.73	total with interest
	10	FMO vehicles	$150,518.63	$686,636.10	
	16	Engine 1(Quint)	$623,186.97	$63,449.13	

The proposed schedule is based on the following assumptions:

1. Revenue contributed to this replacement fund will be invested in the TEEX POOL co-mingled fund with an assumed average investment return of 5% annually.
2. Inflation on equipment is based at 3% per year.
3. The OFD is estimated an initial trade in value of $280,000 for one ladder and two engines.

APPENDIX C

Odessa Fire Department – EMS Subscription Service

The ambulance membership program has the potential to generate additional revenue and will provide an opportunity to improve public education concerning the purpose of the Emergency Medical Services The annual fee is $60.00 and covers the member, spouse and their dependents. The membership covers the portion of the costs not reimbursed by any health care insurance company. The member must allow the city to bill his health care coverage provider whenever the service is used. The collected subscription fees will be deposited into the fire department revenue account. These funds will be used to offset the cost of replacing capital items in addition to the equipment replacement fund.

The question of EMS subscription service was posed in the citizen's survey. According to the response (All District Tables – Pg. 30) 14% said they would be in favor of an EMS subscription service. This service would not be mandatory; it would be by choice. The cities we have surveyed that have implemented this service report a participation rate ranging from 5% to 20% with the average being approximately 8%. Our revenue projection for this service will be based on 8% participation within the community

Research of cities currently using this system indicates that approximately 1.2% of the subscribers will use the service. EMS revenue collected prior to the implementation of the subscription service remained consistent and at approximately the same level. All revenue collected from the subscription service was new and additional revenue. All fees' will be collected by the fire department and deposited into capital/equipment replacement account. These funds can then be roll over from year to year to facilitate the purchase of needed items. Revenue generated from this program will be used to enhance the fire department equipment, facilities, and training.

To track the subscriber's the fire department will add a field to the EMS report to indicate if a person is a subscriber. Billing and collection will then simply not send a bill to those individuals who are subscribers.
Estimated revenue:

In order for this program to be successful there is some initial start-up costs that must be funded. The following items will require funding:

1. Advertising campaign	$25,000
2. Mailing costs	$10,000
3. Printing Costs	$8000
Total start-up fees	$43,000

Revenue generated based on an 8% participation rate

Subscribers	Quantity	%	users	Rate/Monthly	Revenue/yearly
Number of households/City	32,121	8%	2569.68	$ 60.00	$ 154,180.80
Number of households/ ECUD	2705	8%	216.4	$ 60.00	$ 12,984.00
Total	34,826	8%	2786.08	$ 60.00	$ 167,164.80

EMS LIFELINE Call 915-335-4653

A SERVICE OF THE OFESSA FIRE DEPARTMENT

For office use only

Membership Number
Date Received

☐ Follow up

Membership Application

Deadline: September 15th

PLEASE PRINT (Complete in Full)

Last name First Middle initial
Street Address Apt. #
City State Zip
Mailing address (if different than above)
City State Zip
Telephone number Social security number Date of birth / /
Employer Address

List spouse, children under 25, and other dependents listed on your tax return and regularly living at home. (*First name, middle initial, last name if different than member:)*

Name	Date of birth	Social security number	Relationship

Member Insurance Information

MEDICARE INFORMATION

Medicare number
Address Group/Policy #
Supplemental health insurance
Other insurance
Auto insurance

INSURANCE INFORMATION

Address Group/Policy #
Primary health insurance
Other insurance
Auto insurance

Spouse Insurance Information

Medicare Information

Medicare number

Address Group/Policy #
Supplemental health insurance
Other insurance
Auto insurance

Insurance Information

Primary health insurance
Other insurance
Auto insurance

Other Dependent Insurance Information

Name of insured
Medicare Number

	Group number	Address
Primary health insurance		
Other health insurance		
Name of auto insurance		
Other insurance		

A check or money order in the amount of $60.00 must accompany this application. I have enclosed payment by:

_____Check _____Money order

Make check or money order payable to EMS LIFELINE and return to:
PO Box 4398, Odessa, Texas 79760

AGREEMENT
THIS IS NOT AN APPLICATION FOR AN INSURANCE POLICY

I hereby apply for membership with the Odessa Fire Department Emergency Medical Services Program. I understand that the enclose annual fee of sixty dollars ($60.00) will cover myself, spouse, unmarried children under 25 years of age and any other qualified dependents as determined by the IRS and who may live at this address. I understand that through this membership, the Odessa Fire Department Emergency Medical Service will provide emergency ambulance service within Ector County through the Odessa Fire Department. I also understand and give my permission for the Odessa Fire Department Emergency Medical Services to bill my insurance and to obtain benefits, which are entitled through my insurance carriers. **This membership will cover the portion un-reimbursed by my medical coverage for services rendered by the Odessa Fire Department Emergency Medical Services during the time of my membership. If a person does not have health care insurance, this program covers pre-hospital expenses.**

I authorize the release of medical information for the purpose of billing my insurance. I understand that should I or a family member receive payment from insurance or any other medical provider for services rendered by the Odessa Fire Department Emergency Medical Services, the payment will be immediately forwarded to the Odessa Fire Department Emergency Medical Services to the extent necessary to satisfy any balance due.

I do understand that the Odessa Fire Department Emergency Medical Services memberships are not solicited from persons who receive welfare medical benefits (Medicaid) and such memberships constitutes a voluntary contribution. I understand and agree that the EMS Service to be provided under this agreement is for a governmental service and the liability of the city, it's employees and officials is to be governed solely by the Texas Tort Claims Act, chapter 101, Texas Government Code. This agreement does not constitute a waiver or modification of such laws.

I understand the Odessa Fire Department Emergency Medical Services provides ambulance transportation in true emergencies cases only and not for transfer ambulance service. Violations of the terms of this agreement may result in immediate cancellation of my membership or other penalty. I also understand that this membership in non-refundable and non-transferable.

To The Insurance Company

I authorize a copy of this agreement to be used in lieu of the original on file at the Odessa Fire Department Emergency Medical Services office. The original may be furnished on request. I authorize payment of insurance benefits for ambulance service for myself or family members directly to the Odessa Fire Department Emergency Medical Services according to our agreement an as itemized on the attached claims. I have paid the $60 co-payment for ambulance services to be rendered and expect your usual and customary ambulance reimbursement on my behalf to be sent to the Odessa Fire Department Emergency Medical Services.

IMPORTANT: Must be signed to be valid.

MEMBER'S SIGNATURE I have read the above and agree with the above	SPOUSES SIGNATURE I have read the above and agree with the above

Deadline is September 15th
Thank You For Your Support

For Additional Information Call 335-4653

EMS LIFELINE

To all the citizens of Odessa,

The Odessa Fire Department is about to begin its 1999 campaign for **EMS LIFELINE. EMS LIFELINE** is an ambulance membership program that is offered by the Odessa Fire Department to the public in order to help reduce the high costs of ambulance services.

We realize that emergency ambulance service is expensive, with some costs reaching over $275 per patient if certain treatments are necessary and most insurance does not fully cover ambulance costs. Your membership in **EMS LIFELINE** covers the uninsured portion of the costs of emergency ambulance service for you, your spouse, and any unmarried children under age 25 that are enrolled in school. Sixty dollars covers you and your family for one year of emergency ambulance service. An **EMS LIFELINE** membership means that you don't have to worry about an ambulance bill…You're covered. **EMS LIFELINE** will automatically bill any insurance you may have and whatever is paid is accepted by **EMS LIFELINE** as payment in full.

Funds generated by **EMS LIFELINE** memberships go directly toward making improvements and continually updating the Odessa Fire Department's Fire and Emergency Medical Services. Your membership helps provide state–of-the-art equipment and advanced training for FIRE/EMS personnel, so that we can provide quality service to you.

We urge you to take this opportunity to provide this security for you and your family.

John Brown
Fire Chief
Odessa Fire Department

A Service of the Odessa Fire Department